



**GEOGRAPHY
HIGHER LEVEL
PAPER 2**

Wednesday 20 May 2009 (morning)

2 hours 30 minutes

INSTRUCTIONS TO CANDIDATES

- Do not open this examination paper until instructed to do so.
- Answer four questions:
 - two from Section A;
 - one from Section B;
 - one other from any Section (A, B or C).
- Each question must be selected from a different theme.



SECTION A

Answer at least **two** questions from this section and each question must be taken from a different theme. (Do not answer both an essay and a structured question on the same theme.)

Case studies and examples should be used to illustrate answers and, where appropriate, they should be specifically located. Include well drawn, large, relevant maps, sketches, tables and diagrams as often as applicable.

A1. Drainage basins and their management

Either

(a) Essay

Examine how the characteristics of drainage basins affect their response to rainfall.

[20 marks]

Or

(b) Structured question

If you choose to answer this question refer to the photographs in the Resources Booklet.

Photographs X and Y show two fluvial landforms.

- (i) Identify the main fluvial landform shown in each photograph. [2 marks]
- (ii) Explain the formation of **one** of the fluvial landforms you have named in part (i). [4 marks]
- (iii) Explain the formation of **either** waterfalls **or** rapids. [4 marks]
- (iv) Using examples, examine the benefits to people of fluvial depositional landforms. [10 marks]

A2. Coasts and their management

Either

(a) Essay

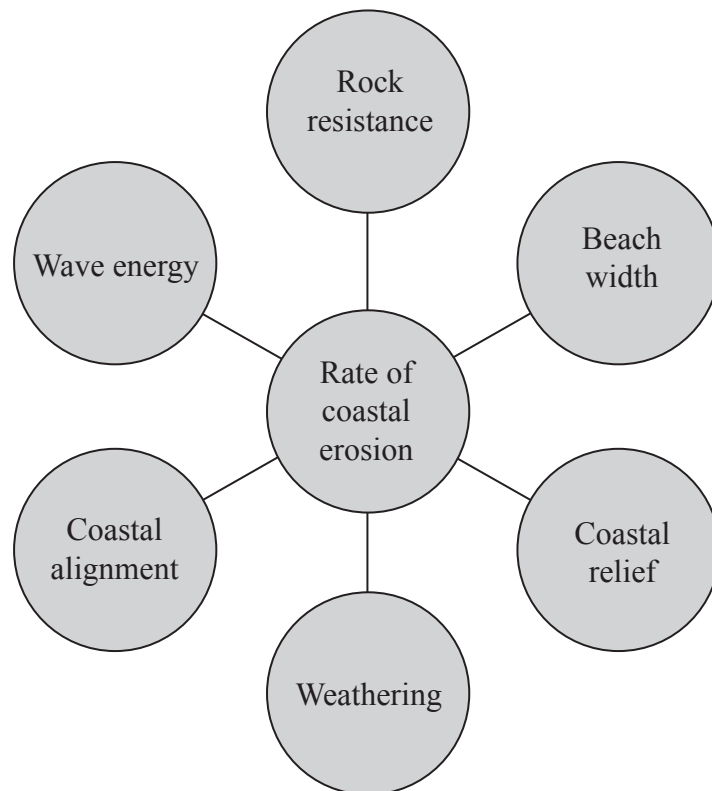
Referring to one or more named examples, discuss the view that coastlines should be allowed to evolve naturally.

[20 marks]

Or

(b) Structured question

The diagram shows some physical factors that influence the rate of coastal erosion.



(i) Describe how **two** of the factors shown on the diagram affect the rate of coastal erosion.

[4 marks]

(ii) Explain how **one** human activity affects the natural process of coastal deposition.

[6 marks]

(iii) Assess the advantages and disadvantages of defending a named stretch of coastline from erosion.

[10 marks]

A3. Arid environments and their management

Either

(a) Essay

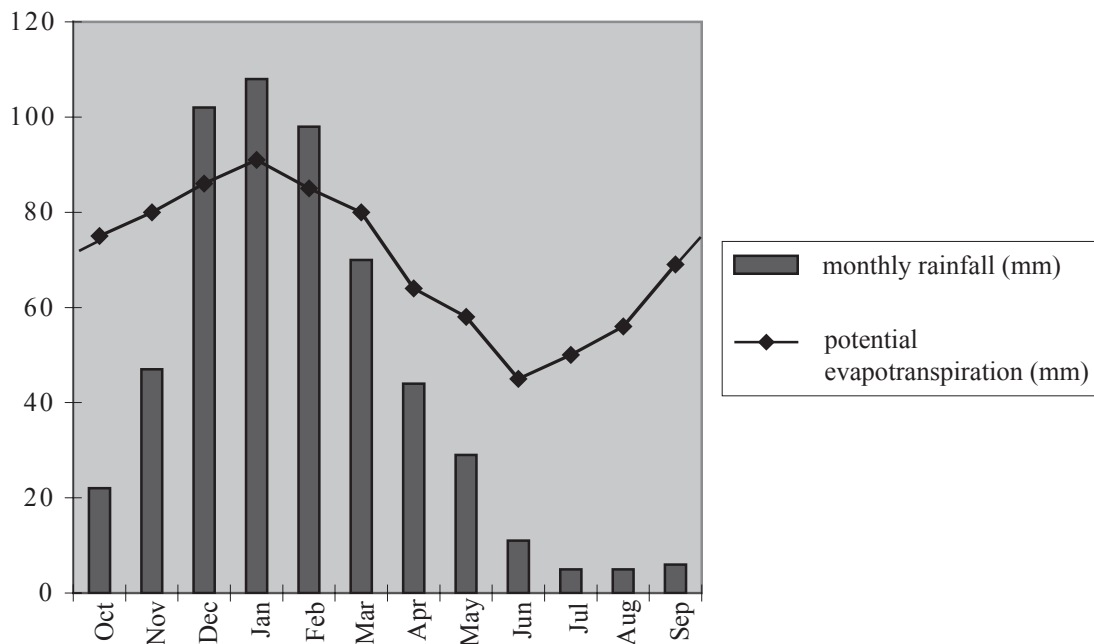
MEDCs and LEDCs are both vulnerable to desertification but for different reasons. Discuss this statement with reference to examples.

[20 marks]

Or

(b) Structured question

The graph shows mean monthly precipitation and potential evapotranspiration for an area with a semi-arid climate.



- (i) Define *potential evapotranspiration*. [2 marks]
- (ii) Name the months when there will be no soil moisture deficit. [2 marks]
- (iii) Explain the processes of deflation and salinization in arid and semi-arid areas. [3+3 marks]
- (iv) “Arid and/or semi-arid areas present more opportunities than challenges for economic activity.” Discuss this statement. [10 marks]

A4. Lithospheric processes and hazards

Either

(a) Essay

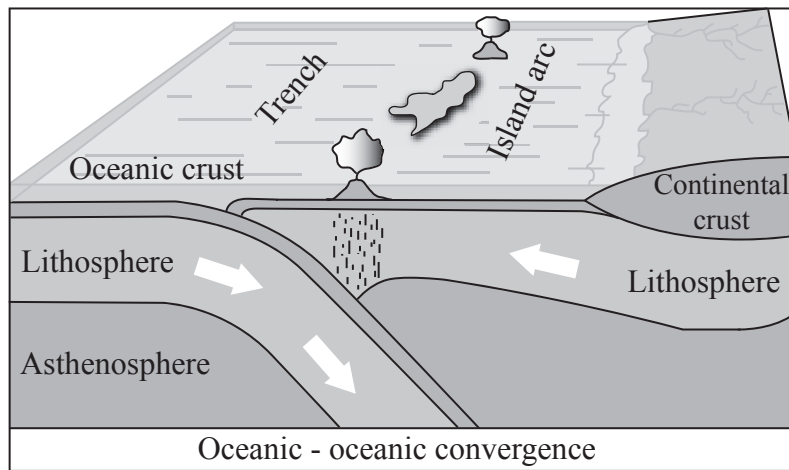
“The secondary effects of lithospheric hazards are often more serious than the hazard event itself.” Discuss this statement.

[20 marks]

Or

(b) Structured question

The diagram below shows one type of plate boundary.



[Source: <http://www.platetectonics.com>]

- (i) State **three** differences between oceanic crust and continental crust. [3 marks]
- (ii) Explain why earthquakes occur at the type of plate boundary shown on the diagram. [3 marks]
- (iii) Explain the processes shown on the diagram that result in the formation of the island arc. [4 marks]
- (iv) Using examples, examine the benefits of living in areas of volcanic activity. [10 marks]

A5. Ecosystems and human activity

Either

(a) Essay

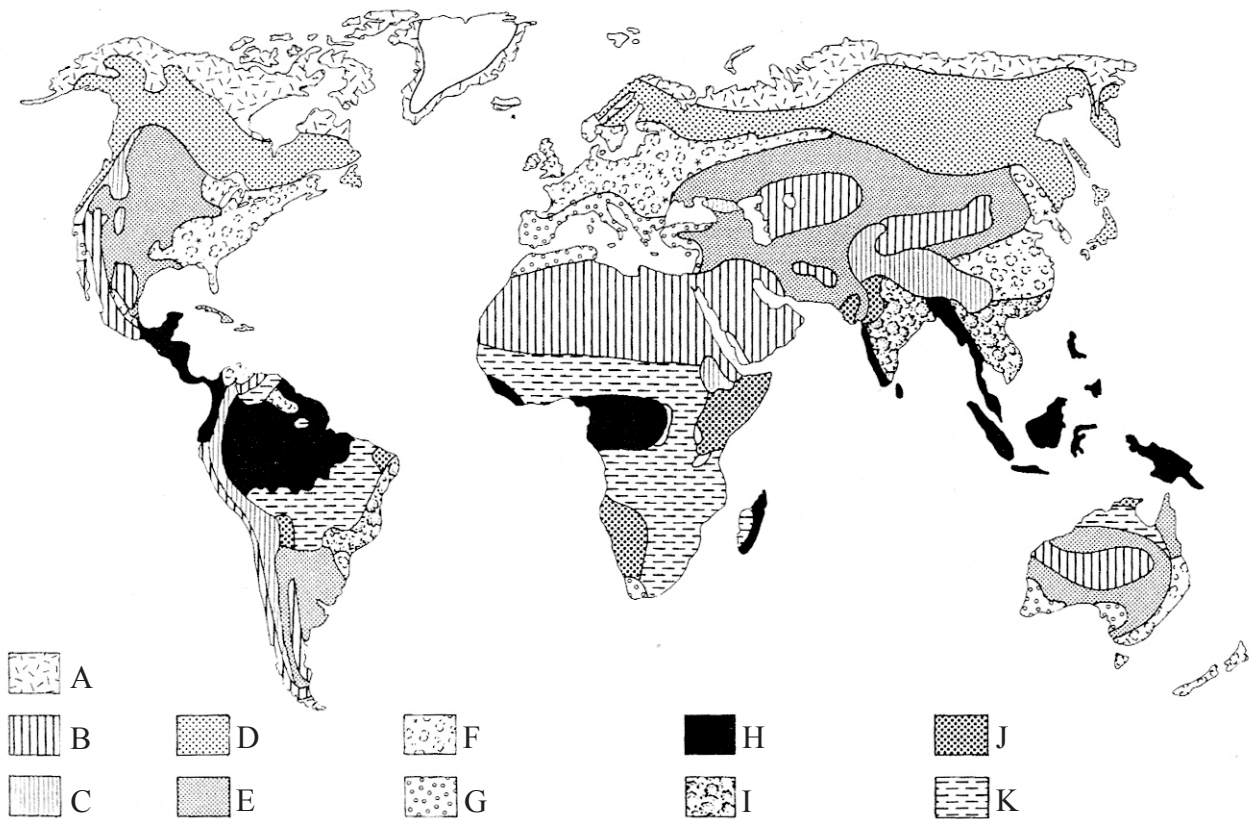
“Human activities always cause permanent changes to ecosystems.” Discuss with reference to examples.

[20 marks]

Or

(b) Structured question

The map shows major biomes.



[Source: *Soils, vegetation and ecosystems*, G. O’Hare]

- (i) Define the term *biome*. [2 marks]
- (ii) Using the letters A–K shown on the map, identify **three** of these biomes. [3 marks]
- (iii) Using a labelled diagram, describe and briefly explain energy flows in a food chain. [5 marks]
- (iv) Examine the reasons for conserving the natural structure and functioning of a named ecosystem. [10 marks]

A6. Climatic hazards and change

Either

(a) Essay

Discuss the causes and possible consequences of the enhanced greenhouse effect.

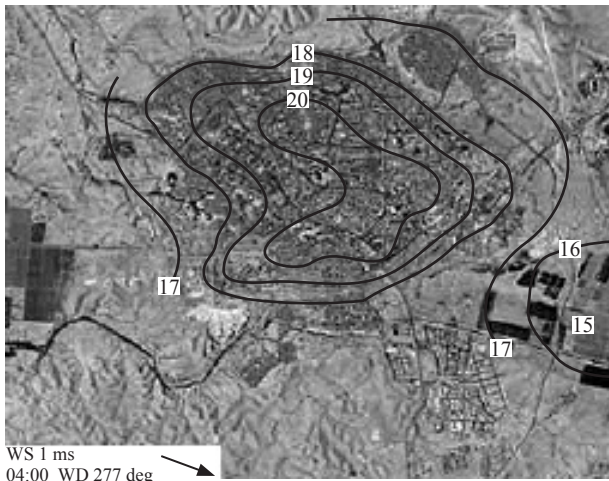
[20 marks]

Or

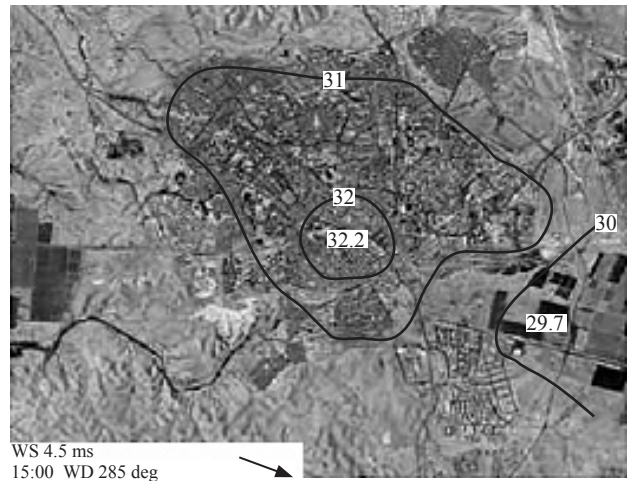
(b) Structured question

The maps show the surface temperatures recorded in the town of Beer Sheva, Israel, at two different times on the same day in summer.

(a) 04:00



(b) 15:00



Key:

Date: 08/08/06

WS: Wind Speed (metres/second)

WD: Wind Direction (degrees) →

[Source: redrawn, based on Sue Grimmond, in Geographical Journal, March 2007. Royal Geographical Society.]

- (i) State the climatic term for the pattern of temperatures shown on the map at 04:00. [1 mark]
- (ii) Explain the possible causes of this pattern of temperatures. [5 marks]
- (iii) Briefly describe how the pattern of temperatures is different at 15:00 and suggest **two** reasons why the pattern has changed. [2+2 marks]
- (iv) Discuss the socio-economic effects of El Niño events. [10 marks]

SECTION B

Answer at least **one** question from this section. If more than one question is selected from this section, each must be taken from a different theme. (Do not answer both an essay and a structured question on the same theme.)

Case studies and examples should be used to illustrate answers and, where appropriate, they should be specifically located. Include well drawn, large, relevant maps, sketches, tables and diagrams as often as applicable.

B7. Contemporary issues in geographical regions

Either

(a) Essay

Examine the idea that some regions have clearly limited boundaries while others have uncertain borders that are difficult to define on a map.

[20 marks]

Or

(b) Structured question

If you choose to answer this question refer to the map in the Resources Booklet.

The map shows eight regions of New South Wales, Australia.

(i) Briefly describe the pattern (size and shape) of the regions shown on the map.

[2 marks]

(ii) Suggest **three** possible characteristics that might have been used to define these regions.

[3 marks]

(iii) Define your local region, and explain why it is **either** a functional region **or** a single feature region **or** a multi-feature region.

[5 marks]

(iv) Discuss the relationships between the contemporary geographical issues of your local region and its physical geography.

[10 marks]

B8. Settlements

Either

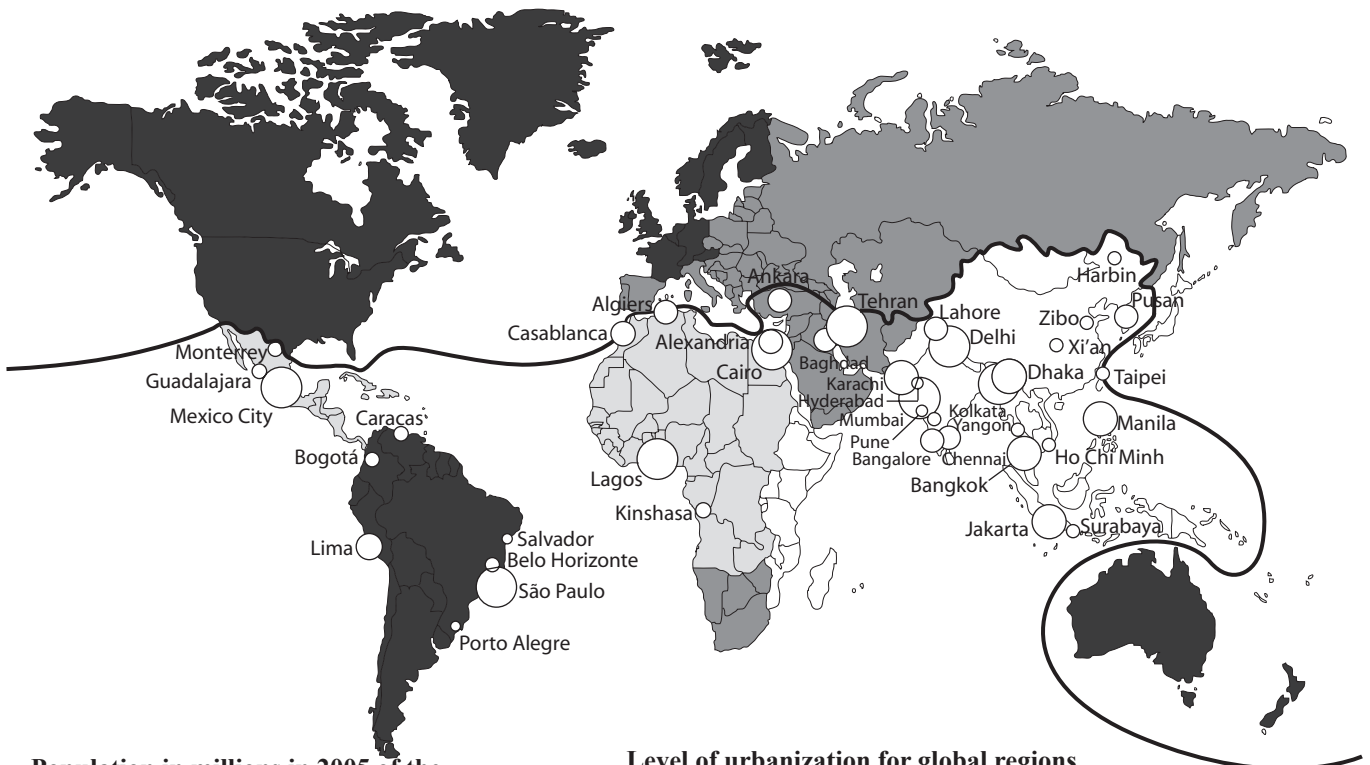
(a) Essay

Explain the causes of counter-urbanization and examine its socio-economic and environmental consequences.

[20 marks]

Or

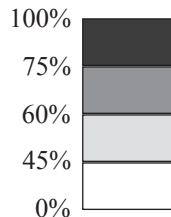
(b) Structured question



Population in millions in 2005 of the world's fastest growing cities between 1985 and 2005

- 20
- 10
- 5

Level of urbanization for global regions



North-South divide

[Source: Adapted from Geographies of Development. Potter R.B. Binns T, Elliott J, Smith D. 2003.]

- (i) Define the process of urbanization and briefly describe the global differences in the level of urbanization shown on the map. [1+3 marks]
- (ii) Describe and explain the global distribution of the world's fastest-growing cities shown on the map. [6 marks]
- (iii) Describe and evaluate the urban regeneration strategies in one or more cities. [10 marks]

B9. Productive activities: aspects of change

Either

(a) Essay

“Industrial relocation is caused by depletion of raw materials.” With reference to examples, discuss this statement.

[20 marks]

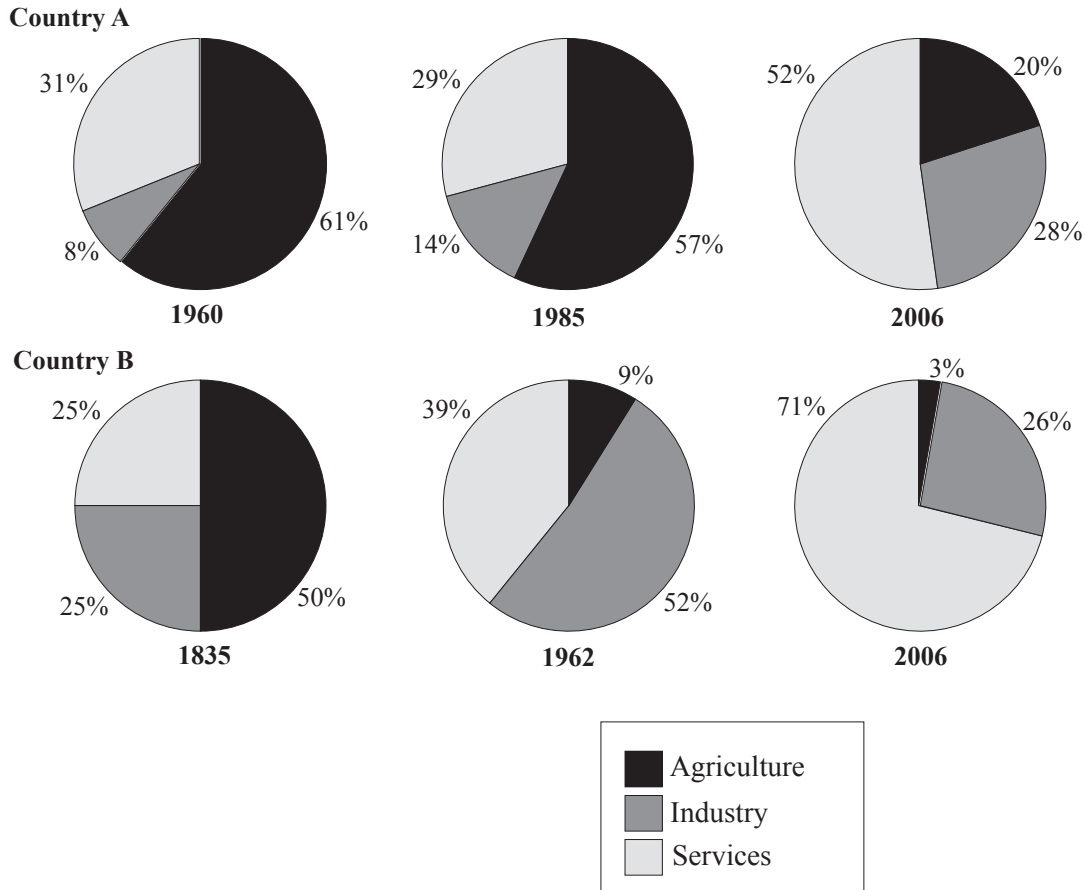
(This question continues on the following page)

(Question B9 continued)

Or

(b) Structured question

The diagrams show the changes over time of the contributions to GNP made by the three sectors of the economy in two countries, A and B.



- (i) Describe the changes in the services sector in Country B from 1835 – 2006. [2 marks]
- (ii) Referring to the data for 2006, state which country is more economically developed and give a reason for your answer. [2 marks]
- (iii) Suggest **three** reasons for the changes in the agricultural sector in Country A. [2+2+2 marks]
- (iv) Examine the global variations in the employment of women and children in agriculture and industry. [10 marks]

B10. Globalization

Either

(a) Essay

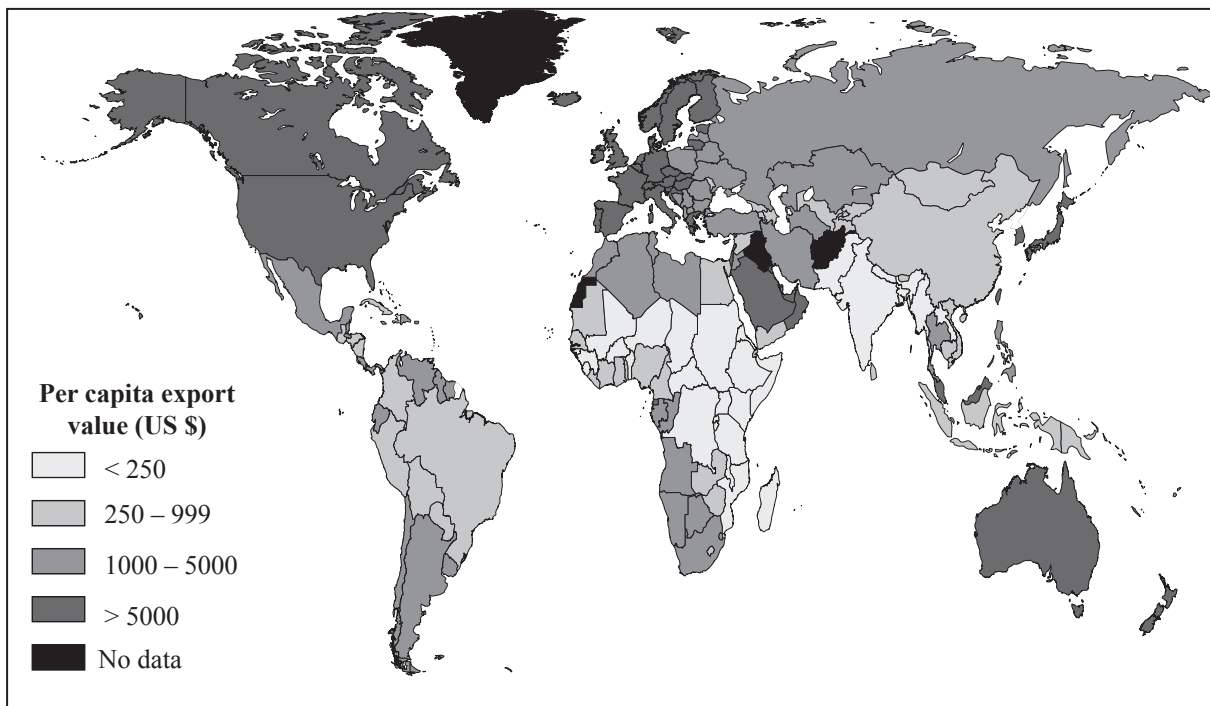
“Tourism is an effective development strategy for LEDCs.” Discuss this statement.

[20 marks]

Or

(b) Structured question

The map shows the global pattern of exports of goods and services. The values are given in US\$ *per capita* at their country of origin.



[Source: World Trade Organization 2005]

- (i) Describe the pattern of exports shown on the map. [4 marks]
- (ii) Explain the role of **either** trading blocs **or** international agreements in the process of economic integration. [6 marks]
- (iii) Examine the impacts of globalization on the culture of a named indigenous population. [10 marks]

SECTION C

*If you choose to answer this question, use the topographic map extract and the aerial photograph in the Resources Booklet to answer **all** parts.*

C11. Topographic mapping

The map shows the city of Guadalajara (4 million people), the second largest city in Mexico, and its surrounding area, which includes part of Mexico's largest natural lake. The enhanced satellite photograph is taken looking across the city to Colima volcano. The volcano is 200 kilometres south of the city. The scale of the map is 1:250 000 and the contour interval is 100 metres.

- (a) Estimate, in kilometres, the shortest distance by road between the settlements of Ajijic (6824) and Tuxcueca (6822). *[2 marks]*
- (b) State **two** advantages and **two** disadvantages of the satellite photograph compared to the map. *[4 marks]*
- (c) Using the map and the photograph, suggest why the city of Guadalajara has not expanded towards the north-east. *[3 marks]*
- (d) Examine the influence of relief on the settlement and communications of the area bounded by grid lines 66, 69, and 25, 28. *[5 marks]*
- (e) Using map evidence only, suggest **three** reasons why the north shore of Laguna (Lake) de Chapala has become a popular recreational area. *[3 × 2 marks]*
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